

## Determinants of Information Communication Technology (ICT) Adoption among Librarians in Academic Libraries

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### ABSTRACT

Information Communication Technology has succeeded in turning most organizations entire world activities around including the academic libraries. This development has reshaped the way academic libraries access, retrieved, and store, handle; disseminate information to its diverse users. In libraries, ICT has been of immense benefits in every sphere of the library activities in the form of collection development management and consortia. Information communication technology has brought an unprecedented development especially in aspect of Online public access catalog (OPAC), reference service, selective dissemination of information, current awareness service and document delivery. This paper is a review of factors that determine ICT adoption in academic libraries. The paper discusses some factors that determine ICT adoption and how ICT can be integrated into various library activities to enhance effective library service delivery.

**Keywords:** Information Communication Technology (ICT); Librarians; Academic Libraries

### INTRODUCTION

Information communication Technology (ICT) has been recognized by many people as catalysts for change, because of their influence on every aspect of human life. ICTs refer to a range of equipment or technological tools such as hardware and software used to access, create, store, organize, manipulate and as well as disseminating information (Diane, 2020). ICT is a generic term that encompasses a range of telecommunication technologies such as Internet, Radio, Video conferencing, Satellite, Cables and other communication medium (Diane, 2020).

The advents of ICTs are making dynamic changes in society. They influence all areas of human life, and the influence is noticed more and more in academic libraries. Because ICTs provide librarians the opportunities to access, process, and disseminate knowledge that would meet the library user's information needs.

Academic libraries are set up purposely to provide information for students, lecturers, researchers etc. in higher institution of learning. The provision of this information is made possible through the use of information Communication Technologies. The use of ICTs in academic libraries has provided a lot of opportunities and benefits to the libraries. The

opportunities provided according to Haliso, (2007) range from resource shaving/document delivery, capacity building, management information system and organization of information for use. While the-benefits as put forward by Ratheeswari, (2018) as: remote access, speedy and access to information ,helps to keep pace with the latest developments, more-up-to-date information, facilitating the reformation and combination of data from various sources and, access to unlimited information from different sources.

Other benefits include: elimination of uninteresting and receptive work, allow integration of various activities, help to increase range of services offered, provide marketing opportunities of its services, it also saves time, help to avoid duplication of effort and breaking the barriers of place, time, or format.

Academic libraries are libraries established and attached to higher institution of learning like the Universities, Polytechnic, Monotechnic, and College of Education to provide information for lecturers, researchers, students and other members of academic community. For this to be useful, it must be timely, affordable and easy to access. In order for these to be possible, the library management must ensure that functional and necessary ICT facilities are put in place.

### **Impact of Information Communication Technology (ICT) on Library Management**

The advent of ICT has made library management a challenging one. The influence of the advent has been felt not only the librarians, library users but also on library services.

The application of ICT in academic libraries has improved the quality of services rendered to the library users especially in the aspect of handling user's queries, access to information, acquisition of information materials and dissemination of information to library users.

On the part of the user's community, ICT has bridge the gap of digital divide, increased the level of technology literacy and demand for better and faster access to information. ICT is impacting on librarians as it provides faster retrieval of stored knowledge. ICT has also survives and makes true rules of library science 'every reader his book', 'don't waste the time of the library users', 'library is a growing organism'.(Arun, 2020).Research has also shown that ICT can also influence other aspects of academic libraries. For instance, the research study conducted by Edit et al. (2018), on the influence of ICT and job satisfaction and organization commitment in companies in Serbia.

The analysis of their data revealed that ICT positively and strongly influence job satisfactions and organizational commitment. In the same vein, (Mohammed et al. (2019) opined that job performance and effectiveness have positive link with information communication technology. This paper therefore purposely reviews the concept of ICT, it impacts on library management and what determine their use. It also identifies ways by which ICT can be integrated into academic library services and recommendations on how librarians can use ICT to enhance library services.

### **DETERMINANTS OF ICT USE**

The adoption of information communication technologies in academic libraries is a complex process that depends on a number of factors so as to make timely information available to library users. Most of the academic libraries lack these factors required, thereby constituting barriers to ICT adoption in academic libraries. Some of these factors are:

#### **ICT Skills**

ICT skills are the skills needed to manipulate

and use ICT related facilities. Since computer technologies are becoming a part of many library jobs. It is that librarians possess these necessary skills needed to manipulate these facilities through training opportunities that is provided by the library management. Eteoja, (2007) reports the result of his study on the extent of ICT knowledge, use and skills of librarians in Nigerian University Libraries. The findings revealed that academic librarians lack necessary ICT skills needed to increase their effectiveness. He attributed this to little or lack of training on ICT. He further stressed the needs to embark on training in the areas relating to, networking, library software, search tools/ engines, programming and software development, security/encryption technologies and Hardware maintenance. The training of this librarian according to Ajidahun, (2007) will enhance their ICT use and increase their knowledge, confidence, productivity and success of the library. The library on the order hand will benefit, through less turnover rate of employees, skilled and motivated workforce.

#### **Culture**

Culture has also been noticed to have a determining influence on ICT adoption. The phenomenon of culture is a strong factor (Odediran, 1992) that determines whether any technology will be accepted or not. It is important therefore, that system planners and program writers should put into consideration cultural setting, awareness and level of education of the intended people the ICT is meant for. Tully, (2003) asserted that the environment where one grows has along way to determine one's ability to use modern technologies. Research conducted among young people of ages 15 and 26 by German Youth Institute from 1998 to 2001 reveals the place of culture as determinant of ICT use.

Findings reveals that young people make use of technology without any hindrance, it was also revealed from the study that these young people have been using computers right from their childhood which has influenced them positively toward their level of performance. However, in Africa this cannot be seen to take place due to lack of good educational culture which has constituted to low level computer literacy. Gould & Gomez, (2010) found out that in most countries, libraries are still being regarded as a place to study on more books thus many users doubt whether it is a 'cool' place to go and meet

their information needs, such as providing current information. Many people are still of the opinion that computers can only be found in cyber cafes and labs but not in libraries. There is therefore the need for library management and professionals to change this notion in other- to encourage more users into the library.

### Erratic State of Power Generation

This is a major problem encountered during ICT installation and use in academic libraries and it is a determinant of ICT use. Nadozie, (2007), and Nwindun, (2006) were of the opinion that power supply is unreliable and that the alternative is expensive, they are also of the opinion that electric power supply is much below meaningful level in spite of huge investment the present government claims to have made to redress the problem of power outage. Without reliable power supply, ICT cannot be used, as means of information communication channel.

### Funding

Funding of library has not been as easy task. This is due to the fact that library are not profit-oriented institution. In most cases institutions fail to allocate enough funds for the provision and use of computer services (Utazi 2009). ICT is a capital intensive venture, hence funding determines the availability, use and is necessary for the acquisition, installation, maintenance, training of staff and users and sustainability of the ICT facilities. Study carried out by Haliso, (2011) on factors affecting information and communication Technology use by Academic librarians on southwestern Nigeria, specifically on how academic libraries get ICT support showed that about 65.5% of the academic libraries under the study did not have a separate bandwidth connection to provide internet services to their clientele. The study also sought to find out how the automation exercise of the academic libraries including internet services was financed. The response of these librarians was that fund had been a barrier for libraries to sufficiently provide quality ICT-based information services for users. The implication of this is that those libraries will not have their dedicated bandwidth which could have encouraged the use of ICT and invariably enhance job performance of the academic librarians.

### ICT Facilities

The state of ICT infrastructural facilities in most

tertiary institutions poses a serious problem to ICT use in our libraries, facilities such as computers, computer network and software, printers, fax machines, telecommunication facilities, photocopiers, limited access to ICT hardware and software and first broadband internet connection which are needed to enhance the use of ICTs in academic libraries to function are not only inadequate, but not very well spread and utilized in Africa institutions of Higher Learning. Study by Roenherg, (2001) showed that students-computer ratio is still very low. Kamba, (2011) added that there is a serious neglect of ICTs resources acquired over a period of years which need upgrading or obsolete and this increases the complexity of managing ICT resources.

### ICT technical know-how among Academic Librarians

The knowledge of ICT possessed by academic librarian has a direct correlation with the services they provide for library users which will consequently affect their use of ICTs. For librarians to be relevant to users there is the need for them to have the basic ICT skills so as to be able to effectively manage these new technologies (Shibanda, 2000).

### Integrating ICT into Academic Libraries

The advent of information communication technologies have introduced a new era in traditional methods of library services, studying, teaching and offering new learning experiences to both librarians and library users. Hence, Nigerian academic libraries should take full advantage of this capability to have easy to access information, because technologies enable the visualization of library material in an innovative and realistic way, hence the need to integrate it. James Mngutyo, Ameakavan, (2015) outlined some strategies that could be used by library to integrate ICT into library management.

These include provision/creation of a favorable environment, proper funding, training and retraining of staff on ICT, inclusion of ICT in nation's education curriculum, provision of policy statement on ICT implementation, and having the knowledge of the users' community.

Integrating ICT into library service according to Akintunde, (2004) will enhance

- Provision of regular library services to users
- Library management and administration

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- collection development management
- Access to on-line resources
- Inter-library cooperation and lending (collaboration).

### CONCLUSION AND RECOMMENDATIONS

In view of the changing modern technology, library and information science professionals should avail themselves to learn how to make use of such latest skills in their field, because the success of the profession largely anchors on how best they could harness these technologies in performing library practice and achieving productivity in obtaining set objectives.

Arising from the review, the following recommendations were made:

The management of academic libraries should constantly review the state of ICTs in academic libraries with a view to improving the quality of service rendered to users.

The academic library management should provide adequate fund for the acquisition of appropriate ICTs.

The management of academic library must put appropriate ICT strategies and policies in place that will enhance ICT skills of academic librarians.

A steady and reliable source of power supply should be put in place to solve the problem of erratic power supply.

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